

Animal Researchers Look for Unknown Growth Factor in Hay

A lot of farmers have been making it easy for their cows to digest their feed in recent years, and as a result, a lot of good, high producing dairy cows are dying prematurely at considerable loss to their owners. That's the gist of recent articles in a variety of farm publications by some top-notch veterinarians from around the country.

The desire to mechanize feeding operations has seen many farmers cutting back on the amount of hay they've been feeding dairy animals. Silage has become an important part of dairy animals' feeding programs because it can be fed mechanically, and a lack of labor has forced more and more automation on farmers.

The problem, according to the many vets, is that the expanded use of silage feeds has lessened the work a cow must put into digesting her food, and less stimulation for her digestive system which is an important part of her milk production mechanism.

As a result, the internal makeup of many cows is being altered, causing shrinking of the rumen and enlargement and twisting of the abomasum, leading to a variety of disorders, some of which prove fatal a short time after symptoms appear.

Dr. Samuel Guss, Penn. State veterinarian, noted recently that lack of good hay in the period before calving can mean a cow is headed for trouble. Dr. Guss points out that the dairy cow's rumen is a large "mixing vat" where food is digested and turned into meat and milk.

Powerful bands of muscles around the rumen provide the churning action and move digested feed through the digestive tract where the nutrients are removed. A normal 1,200 pound cow has a rumen capable of holding 180 to 200 pounds of feed and water, ac-

ording to Dr. Guss.

When a cow fails to get the coarse, hard, stemmy fibers associated with hay during the late lactation and dry period, the muscles work less and as a result the rumen shrinks allowing other organs to shift. After a cow has her calf, Dr. Guss says, there's a good chance she'll suffer from "twisted stomach," a condition veterinarians have been seeing more of in recent years.

A three year study of high-silage and grain feeding practices made at Cornell University has turned up some startling evidence that a no-hay diet not only leads to pesky problems and loss of milk production, it can also mean abnormally high mortality in dairy herds.

A Cornell report issued last year showed that nine out of ten cows fed only liberal amounts of grain and silage either died or had to be slaughtered before their third lactation. However, nine out of ten cows which had all the hay they wanted, along with rations of grain and silage, made it through the third lactation.

The Cornell research team fed other groups of cows varying amounts of grain, hay and silage with results that ranged between the two extremes mentioned. Death losses weren't high for any cow groups which got at least eight pounds of hay per day.

Cows which were on the all silage and grain diets with no hay seemed to lack resistance to disease and reproductive disorders. The Cornell tests are still being studied.

In Michigan, dairy scientists are calling similar problems the "Fat Cow Syndrome" and are conducting similar research projects in the area of dairy cow feeding. Dairy specialist Don Hillman says the barn boss at Michigan State University has reported long hay is a sure cure for off-feed cows on high grain and high corn silage rations.

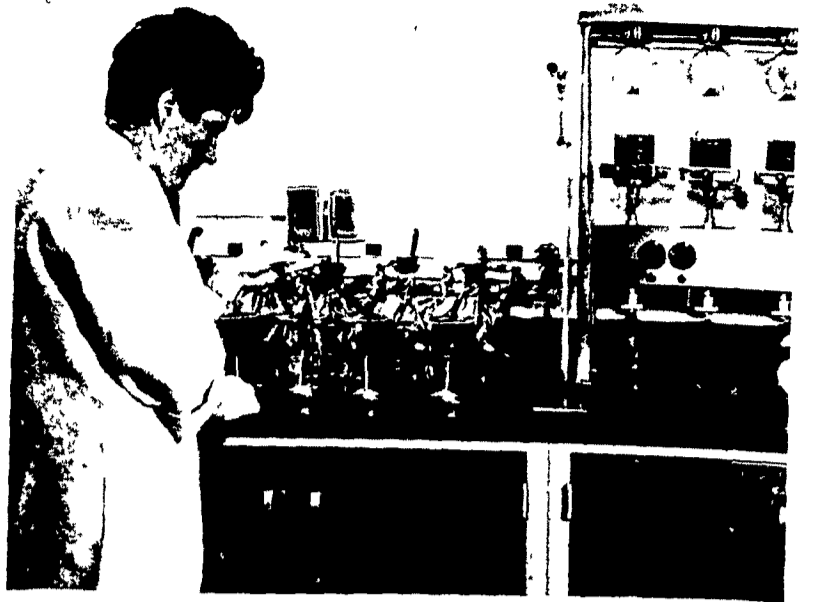
Veterinarian L. C. Allenstein has reported several recent cases he and his partner treated in which cows had suffered from abomasal ulcers. He, too, laid part of the blame for these and some other cow disorders to "increased grain feeding, lack of long stemmed hay, increased silage and haylage feeding and increased chopped feeds."

All sorts of substitutes for hay have been tried in recent years, ranging from plastic pellets to old newspapers and sawdust. Some of these show promise, but none of the substitutes seem able to do the job that hay does in keeping a cow healthy.

One of the reasons for this, according to James Stere, a researcher and well-known authority for Sperry Rand's New Holland farm equipment division, is that hay contains an "unknown growth factor," or UGF as animal researchers have come to call it.

In a discussion at the National Hay Association convention in North Carolina recently, Stere said there is no substitute known for UGF.

"There is a great deal of research, money and talent being



"Unknown Growth Factor", or UGF as animal researchers have come to call it, is contained in hay. Laboratory technicians are attempting to isolate and identify that factor which accounts for good growth in cows. Cornell University researchers report that 90 per cent of a dairy cow sample under study, which were fed rations of only grain and silage with no hay, either died or had to be slaughtered before their third lactation.

directed to the study of these factors in an effort to isolate and identify the ingredients that account for good growth in cows," Stere said.

He added that the nutritive and physical value found in good quality hay have not been equaled by any of the substitutes

which include corn cobs, oyster shells, straw, sugar cane and cotton burrs in addition to the newspaper and sawdust experiments.

It seems that a cow just has to have good quality hay in her diet if she's going to remain healthy and productive, Stere said.

DAIRYMEN! PRESERVE YOUR FREE ENTERPRISE SYSTEM

Against the growing trend toward cooperative monopolies in the dairy industry, Eastern Milk Producers Cooperative has a vital role to play in the preservation of private enterprise.

Every dairyman is a businessman who should have the right to guide his own destiny through choice. Traditionally, this has been the American way. Monopolies are now taking place across this nation which challenge this fundamental right. Eastern Milk Producers cannot be expected to merely sit still.

We shall examine and use every means possible to preserve our markets and stem the threat of monopolies to all markets in the Northeast. We shall vigorously defend the dairyman's right to maximize his income. Eastern is your alternative, totally committed to continuing our proven record of fair payments.

Dairymen have a right to an open market. It is fundamental to the survival of our private enterprise dairy industry. Eastern Milk Producers will exercise that right.

Join Eastern and preserve the free enterprise system.

Call or write:



**EASTERN
MILK PRODUCERS**
COOPERATIVE ASSOCIATION, INC.
Kinne Road, Syracuse, New York 13214

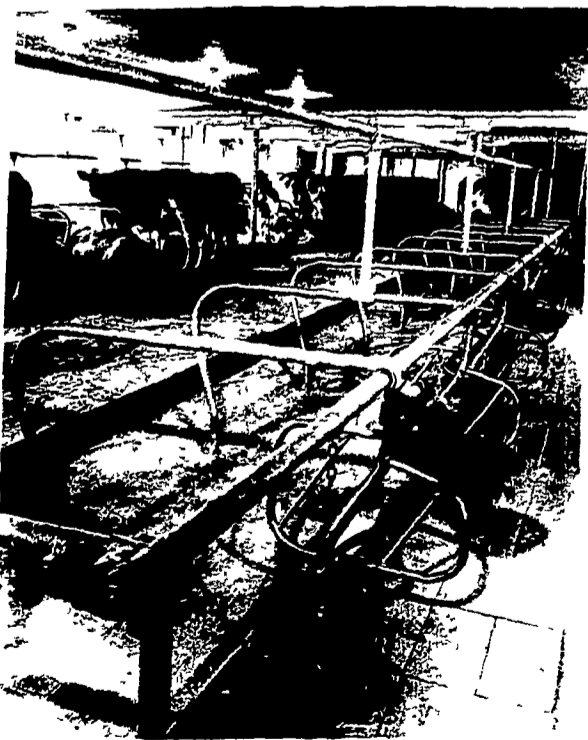
REBUILDING OR REMODELING?

SEE US AT

SHOW EASE STALL CO.

For Your Barn Equipment . . .

STALLS - Custom 6 or Regular
COW MATS - LANCASTER SILOS
Full Line of BADGER EQUIP.



SHOW EASE STALL CO.

523 Willow Road

Lancaster, Pa. 17601

Phone 299-2536